WE CLAIM

1.   A system for controlling switching fabrics in a communications switch platform having a

data plane for processing data, including an active fabric having an ingress and an egress and

5   establishing a first datapath, a redundant fabric having an ingress and an egress and establishing

a second datapath, and a fabric switch selecting one of said fabrics to a system output,

comprising:

a control plane for monitoring said processing of data, including:

(i)   a plurality of monitors operatively connected to monitor the status of elements in

10   said active and redundant fabrics in the data plane; and

(ii)   a first fabric activity switch circuit adapted to determine whether said fault

occurred in said active fabric, and if so, to generate a fabric activity switch signal directed to said

fabric switch to switch to said redundant fabric,

whereby, the control plane receives data plane fabric status inputs from the data plane

15   and effects control over said fabric switch, but otherwise operates independently of said data

plane.

2.   The system of claim 1, further comprising a redundant fabric activity switch circuit

which, in the event of failure of said first fabric activity switch circuit, is adapted to determine

20   whether said fault occurred in said active fabric in the data plane, and if so, to generate a fabric

activity switch signal directed to said fabric switch, whereby, redundant control is provided over

said fabric switch.

3.   The system of claim 2, further comprising a plurality of redundant monitors operatively connected to monitor the status of said first fabric and said redundant fabric for a fault, whereby, redundant reporting paths are provided in the control plane for the status of said first and said redundant fabrics.

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4.   The system in claim 3, wherein said plurality of monitors and redundant monitors comprise a pair of shelf controllers per shelf, and each monitor and each redundant monitor of each pair of shelf controllers is connected by respective control service links to a first inter-shelf I/O interface card and a second inter-shelf I/O interface card, respectively, whereby shelf status information is provided across shelves to redundant I/O interfaces.

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5.   The system in claim 4, further comprising first and second inter-shelf management cards, each of said first and second inter-shelf management cards being cross-connected to each of said first and second inter-shelf I/O interface cards, whereby, multiple redundant paths are provided between said pairs of shelf controllers and said inter-shelf management cards.

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6.   The system in claim 5, further comprising first and second fabric activity switch control cards, each of said first and second fabric activity switch control cards being cross-connected to each of said first and second inter-shelf management cards, whereby, multiple redundant paths are provided between said pairs of shelf controllers and said fabric activity switch control cards.

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7.   The system in claim 6, further comprising a fabric override input adapted to generate a fabric activity switch signal directed to said fabric switch in the data plane, whereby, the selection of a fabric by the fabric activity switch circuit may be overridden.

5   8.   The system in claim 1, further comprising a fabric override input adapted to generate a fabric activity switch signal directed to said fabric switch in the data plane, whereby, the selection of a fabric by the fabric activity switch circuit may be overridden.

9.   The system in claim 2, further comprising a fabric override input adapted to generate a fabric activity switch signal directed to said fabric switch in the data plane, whereby, the selection of a fabric by the fabric activity switch circuit may be overridden.

10.   The system in claim 3, further comprising a fabric override input adapted to generate a fabric activity switch signal directed to said fabric switch in the data plane, whereby, the selection of a fabric by the fabric activity switch circuit may be overridden.